

**UTILITY  
PATENT APPLICATION  
TRANSMITTAL**

(Only for new nonprovisional applications under 37 C.F.R. 1.53(b))

Attorney Docket No. 31978-201641

First Inventor Katsuhiko YANAGIHARA

Title DETECTION OF NUCLEIC ACID SEQUENCE VARIATIONS USING  
PHAGE MU TRANPOSASE

Express Mail Label No.

**APPLICATION ELEMENTS**

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.  
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 40 ]  
(preferred arrangement set forth below)  
- Descriptive title of the invention  
- Cross References to Related Applications  
- Statement Regarding Fed sponsored R & D  
- Reference to sequence listing, a table,  
or a computer program listing appendix  
- Background of the invention  
- Brief Summary of the invention  
- Brief Description of the Drawings (if filed)  
- Detailed Description  
- Claim(s)  
- Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 6 ]
5. Oath or Declaration [Total Pages 4 ]  
a. ☒ Newly executed (original or copy)  
b. ☐ Copy from a prior application (37 CFR 1.63 (d))  
(for a continuation/divisional with Box 18 completed)  
i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s)  
named in the prior application, see 37 CFR  
1.63(d)(2) and 1.33(b).
6. ☒ Application Data Sheet. See 37 CFR 1.76
- 6a. ☒ Priority is claimed under the provisions of 35 U.S.C. § 119  
Appln No. 60,457,934 filed in U.S. on March 28, 2003  
Appln No. \_\_\_\_\_ filed in \_\_\_\_\_ on \_\_\_\_\_

**ADDRESS TO:**Commissioner for Patents  
Box Patent Application  
Alexandria, VA 22313-1450

7. ☐ CD-ROM or CD-R in duplicate, large table or  
Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)  
a. ☒ Computer Readable Form (CRF)  
b. Specification Sequence Listing on:  
i. ☐ CD-ROM or CD-R (2 copies); or  
ii. ☒ paper (3 pages)  
c. ☒ Statements verifying identity of above copies

**ACCOMPANYING APPLICATIONS PARTS**

9. ☒ Assignment Papers (cover sheet & document(s))
10. ☐ 37 C.F.R. §3.73(b) Statement ☐ Power of  
(when there is an assignee) Attorney
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure ☐ Copies of IDS  
Statement (IDS)/PTO-1449 Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
16. ☐ Request and Certification under 35 U.S.C. 122  
(b)(2)(B)(i). Applicant must attach form PTO/SB/35  
or its equivalent.
17. ☐ Other: \_\_\_\_\_

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment,  
or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP)

of prior application No: \_\_\_\_\_ / \_\_\_\_\_

Prior application information: Examiner \_\_\_\_\_

Group / Art Unit: \_\_\_\_\_

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied  
under Box 5b, is considered a part of the disclosure of the accompanying or divisional application and is hereby incorporated by reference.  
The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

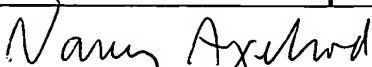
**20. CORRESPONDENCE ADDRESS**☒ Customer Number or Bar Code Label

26694

or ☐ Correspondence address below

PATENT TRADEMARK OFFICE

Name	VENABLE LLP				
Address	P.O. Box 34385				
City	Washington	State	D.C.	Zip Code	20043-9998
Country	U.S.A	Telephone	202-344-4000	Fax	202-344-8300

Name (Print/Type)	Nancy J. Axelrod, Ph.D.	Registration No. (Attorney/Agent)	44,014
Signature		Date	March 26, 2004

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# FEE TRANSMITTAL

## for FY 2004

**Patent fees are subject to annual revision.**

**Complete if Known**

<b>TOTAL AMOUNT OF PAYMENT</b>	<b>(\$)</b>	<b>1,356.00</b>
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Application Number	To Be Assigned
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March 26, 2004

First Named Inventor      Katsuhiko YANAGIHARA

Examiner Name	To Be Assigned
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Group / Art Unit	To Be Assigned
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Attorney Docket No. 31978-201641

**METHOD OF PAYMENT (check one)**

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:

Deposit  
Account  
Number

22-0261

Deposit  
Account  
Name

- ☒ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17
- ☐ Applicant claims small entity status. See 37 CFR 1.27

2. ☒ Payment Enclosed:

☒ Check    ☐ Credit card    ☐ Money Order    ☐ Other

### FEE CALCULATION

1. BASIC FILING FEE

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid
1001	770	2001	385	Utility filing fee	770.00
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

<b>SUBTOTAL (1)</b>	<b>(\$) 770.00</b>
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## 2. EXTRA CLAIM FEES

				Extra Claims		Fee from below		Fee Paid
Total Claims	36	-20 **	=	16	X	18	=	288
Independent Claims	6	3	=	3	X	86	=	258
Multiple Dependent					X	0	=	0.00

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2204	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

<b>SUBTOTAL (2)</b>	<b>(\$)</b> 546.00
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**FEE CALCULATION (continued)**

### 3. ADDITIONAL FEES

Fee Code	Large Entity Fee (\$)	Fee Code	Small Entity Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2215	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2010	2255	1005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive – unavoidable	
1453	1,330	2453	665	Petition to revive – unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	25403	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)	
1808	180	1808	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	40.00
1809	770	2809	385	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR § 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) \_\_\_\_\_

*Reduced by Basic Filing Fee Paid	<b>SUBTOTAL (3)</b>	<b>(\$)</b> 40.00
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\*\*or number previously paid, if greater; For Reissues, see above

## SUBMITTED BY

Complete (if applicable)

Name (Print/Type)	Nancy J. Axelrod, Ph.D.	Registration No. Attorney/Agent	44-014	Telephone	(202) 344-8334
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**Signature**

Date	March 26, 2004
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**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**  
**SEND TO: Commissioner for Patents, Mail Stop Patent Application, Alexandria, VA 22313-1450.**

**VENABLE**  
ATTORNEYS AT LAW

PC Docs No. 534641v1